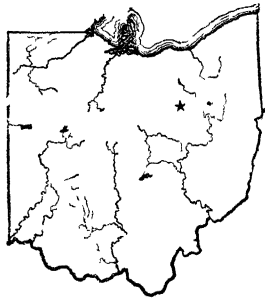


METHODS OF RENTING LAND IN OHIO

OHIO
Agricultural Experiment
Station

WOOSTER, OHIO, U. S. A., MAY, 1921

BULLETIN 348



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TENANCY IN OHIO

Tenancy has increased from 19.3 percent in 1880 to 29.5 percent in 1920.

In 1920, 69.1 percent of Ohio tenants rented by the share; 30.9 percent had a cash lease. There has been very little difference in the percentage of farms that rent for share or cash since 1880.

Most Ohio land owners prefer share rent; it gives more control over operation of farm; more livestock is kept; fertility of land may be maintained and adjustments may be made with changing values and prices.

Tenants prefer share rent because less capital is required; the owner is more interested in the up-keep of the farm; young tenant has the benefit of experience and advice of land owner.

Farm leases should definitely state the length of the lease—what landlord and tenant shall each contribute; how buildings and fences shall be kept in repair; how fertilizers and manure should be applied to the soil; how weeds shall be destroyed, and should state a system of arbitration.

Form leases should be avoided and a lease drawn that will fit the particular farm and its conditions.

Experiments indicate that approximately 50 percent of the benefits derived from fertilizers and manure in an ordinary Ohio rotation are recovered in the crops to which they are applied, while 50 percent is recovered in subsequent crops.

The tenant should be compensated for his expense for fertilizers in case he does not receive his share of their benefit.'

BULLETIN

OF THE

Ohio Agricultural Experiment Station

NUMBER 348

MAY, 1921

METHODS OF RENTING LAND IN OHIO

J. I. FALCONER*

EXTENT OF RENTING

A considerable proportion of Ohio farms are now rented. The census of 1920 reported 75,644, or 29.5 percent of all farms in the State to be operated by tenants. There has been a gradual increase since 1880 when statistics on tenancy were first made available.

RENTED FARMS IN OHIO

| | 1880 | 1890 | 1900 | 1910 | 1920 |
|--------------|----------------|----------------|----------------|----------------|----------------|
| | <i>Percent</i> | <i>Percent</i> | <i>Percent</i> | <i>Percent</i> | <i>Percent</i> |
| Farms rented | 19.3 | 22.9 | 27.4 | 28.4 | 29.5 |

The number of rented farms varies widely in the different sections of the State. In Madison County, in 1920, 51.7 percent of the farms were reported to be rented; in Meigs County, 11.2 percent. In other counties the percents vary between these extremes. On between one-quarter and one-third of Ohio farms, the matter of the rental contract between the farm owner and the operator is of direct concern. The farm operator who at some period of his farming has not been directly interested in the matter of a rental contract is the exception rather than the rule. Of 112 adjacent farmers questioned in a community in Miami County in 1916, all but 20 percent were then operating or had at some time in the past operated farms as tenants.

It is not the purpose of this bulletin to discuss the relative advantages or profits of farming as a tenant contrasted with ownership. It is rather to set forth the nature of farm rental contracts as they now exist in Ohio, with certain suggestions for improvement. It is believed that the wider adoption of good leasing

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methods will go far toward bettering conditions. A good lease should provide for and allow profitable farming, give a fair division of returns and maintain or increase the productivity of the farm. The lease should be based upon the hope of securing a tenant who will make good, maintain the fertility of the soil and eventually buy a farm of his own.

The information presented in this bulletin with reference to methods of renting land in Ohio has been secured from not less than 1,000 farm management survey records taken on tenanted farms in various sections of the State, from the examination of more than 200 leasing contracts, and from numerous discussions with tenants and land owners.

METHODS OF RENTING

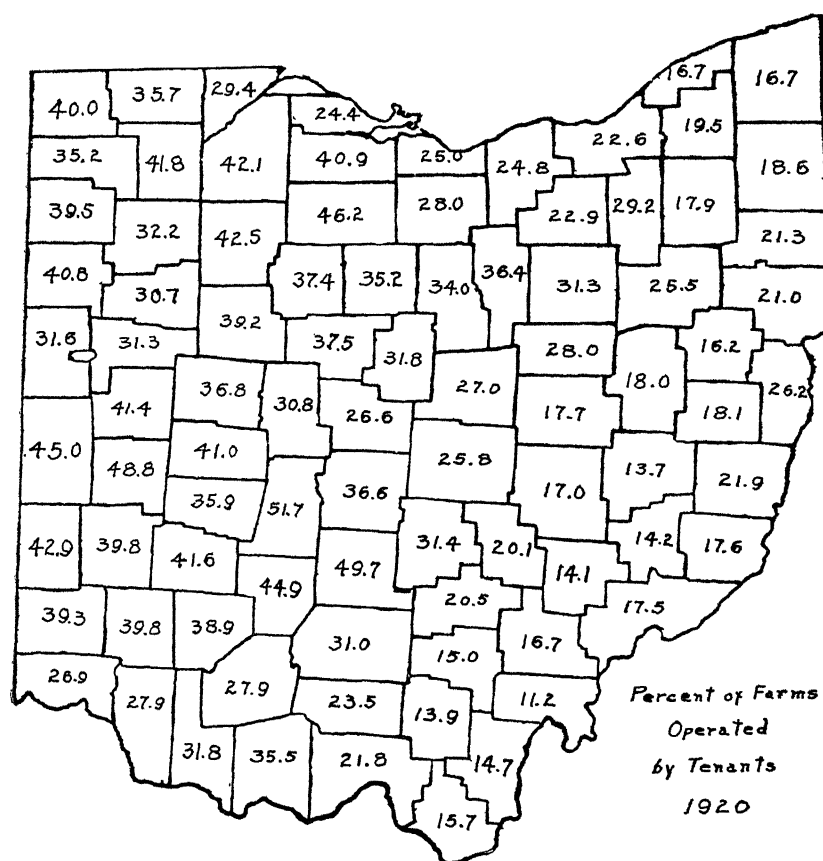
There are two main methods of renting farms in Ohio; namely, cash and share. In 1920 practically two-thirds, or 69.1 percent of the tenanted farms in the State were operated on the share-rent basis. Census figures would indicate that for the State as a whole there was no apparent change from cash to share or from share to cash during the period 1880 to 1920.

TENANTS WHO RENT CASH OR SHARE

| | 1880 | 1890 | 1900 | 1910 | 1920 |
|-----------------|----------------|----------------|----------------|----------------|----------------|
| | <i>Percent</i> | <i>Percent</i> | <i>Percent</i> | <i>Percent</i> | <i>Percent</i> |
| Share | 68.6 | 67.7 | 68.8 | 69.2 | 69.1 |
| Cash. | 31.4 | 32.3 | 31.2 | 30.8 | 30.9 |

Cash renting seems to prevail in the dairy regions, in the vicinity of large cities and in counties like Madison and Union where there is considerable land devoted to grazing. In the tobacco-growing regions, share renting is practiced nearly exclusively. In any community few leases will be found similar in all details. As many or more factors influence the terms of a lease as enter into the selling price of land. In a share lease if the farm is distant from market, has a poor soil, is poorly laid out or has poor buildings, the share which the owner should receive would be less than if the farm were better, the tenant may have little or much money or skill to put into the proposition; all of these and many other factors will vary the terms of the lease. The methods of renting in the State are numerous. The prevailing practice will vary with the type of farming.

Cash versus share rent.—Many land owners and many tenants prefer to rent land on the share basis; others are equally favorable to the cash lease. There are many points in favor of both. Among the reasons given by Ohio landowners for preferring to let land for cash rent are: that it requires less attention on the part of the owner, that he knows in advance the amount of rent which is to be received. For these reasons landowners who live some distance from their farm frequently prefer to lease for cash. Other owners say that it is easier to get and keep a good cash renter than it is a share renter; others select it because there is less cash outlay on the owner's part. Tenants give the following reasons for preferring cash rent: It gives them more liberty; it is usually more profitable if the tenant has the necessary capital and ability; all the results of extra effort are their own; they are free to do outside work.



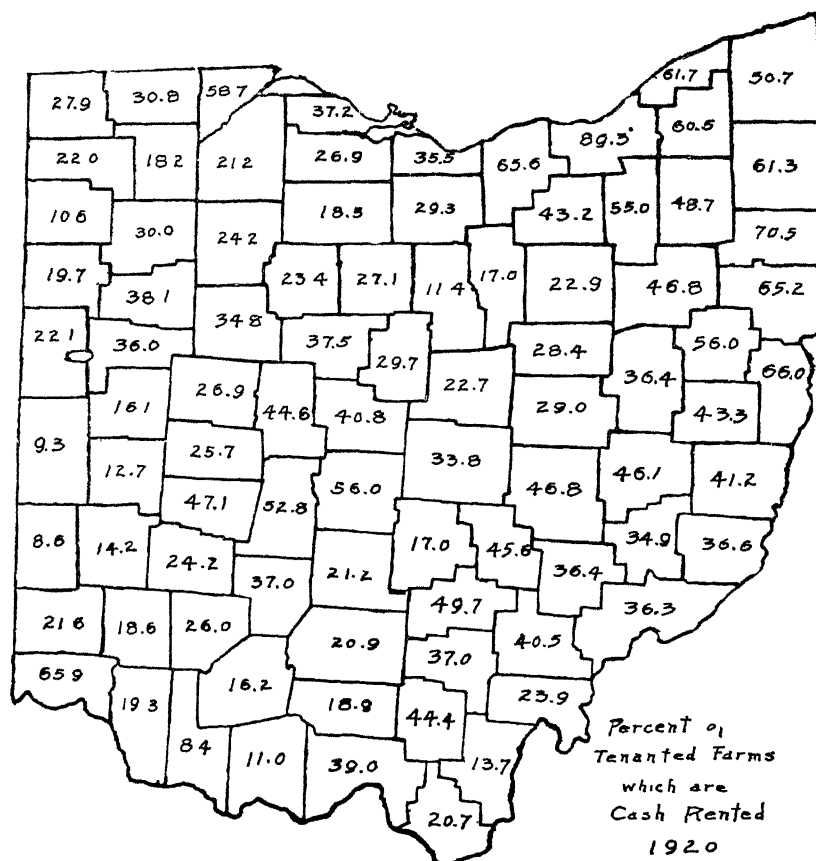
The reasons most frequently put forth by Ohio landowners for preferring share rent are as follows: It gives more control over the operation of the farm; in a bad year losses are divided and in a good year profits are shared; the fertility of the land can be better maintained; more livestock is usually kept; it pays best; adjusts itself better to changing values and prices. Among the tenants, reasons for preferring share rent are the following: It requires less capital on the part of the operator to do a good volume of business; the owner is more interested in the upkeep of the farm; the rent is less in poor years; the young tenant has the benefit of the experience and advice of the landowner.

METHODS OF LETTING LAND ON SHARES

Where the landlord receives two-thirds of the products.—This method of renting is found to some extent in all sections of Ohio. The landlord commonly furnishes all livestock including horses, the equipment, seed and fertilizer and pays all operating expenses except the labor. The tenant furnishes all labor necessary to operate the farm and receives one-third of the receipts. In some cases the tenant pays one-third of the fertilizer bill, and some leases provide that he should pay for threshing. When much livestock is kept the tenant frequently furnishes one-third of the productive livestock, pays one-third of the threshing and machine hire for silo filling and pays for all horse shoeing. When the lease is entered upon, it is customary for the tenant to purchase one-third of the feed on hand and if feed is purchased, to pay one-third of the feed bill. The tenant is given the use of the house and garden free of charge. This method of renting is more frequently found upon grain than upon livestock farms. When followed upon dairy farms the tenant usually receives one-third of the milk sales, sometimes one-half. With this method of renting, the title to all the stock and equipment remains with the landlord, while the tenant has the responsibility of securing the necessary labor to operate the farm. Of all the methods of renting discussed in this bulletin the two-thirds system requires the least capital on the part of the operator, and for this reason it is frequently selected by young men having limited capital.

Where the landlord received two-fifths of the crops.—This was formerly a common method of renting in western Ohio. The landlord furnished all real estate and paid the real estate taxes. He received two-fifths of the crop raised. If the hay was divided he usually received one-half of the hay. The tenant equipped the farm

and paid all operating expenses including fertilizer and clover seed. This method of renting is now infrequent as the farmers are changing to some form of the one-half share. In 1915 it was a common method of renting in Sandusky and other northwestern counties. It was rarely found in southwestern Ohio.



Where the landlord received one-half of the crops.—This method of renting commonly called “the crop-share plan” is probably the most frequent way of share renting in the State. Under this method the owner receives one-half of all the crops. In some sections he receives one-half the corn in the shock, two-fifths of the small grain and one-half of the hay in the mow. In the tobacco section he frequently receives two-fifths of the tobacco although the one-half is becoming more common in the last few years. In Miami County in 1916 about one-half of the landlords were receiving one-half of the tobacco, the others, two-fifths. The tenant

generally furnishes all the labor, teams and equipment necessary to operate the farm. The owner provides the land, the buildings and a truck patch, rent free. The division of the other operating expenses varies widely. In the majority of cases the landlord pays one-half of the expense for fertilizer and one-half of the seed bill and in some cases one-half of the threshing bill. Of 55 tenants found to be operating under this system in a community in Miami County in 1916, 17 paid all operating expenses except taxes and repairs, 27 others shared equally with the landlord the expense for seed and fertilizer; the threshing, fuel and twine being paid by the operator. In eight cases the threshing was shared one-half by each. In only one instance was the twine expense shared. Of 23 tenants in Montgomery County, in all but two cases the tenant and landlord shared equally the fertilizer expense. In one case it was all paid by the owner, in another all by the operator. In seventeen instances the seed expense was paid equally, in five, by the operator and one by the owner. In seventeen instances the threshing expense was shared equally; in six instances the operator paid all. In every instance the operator paid all the twine expense, and in all but two cases all the fuel bill for threshing. Of 18 tenants operating under this system in Stark County all shared the fertilizer and seed expense equally with the landowner. In all cases the tenant paid the twine bill and in all but three instances all the threshing charge. It was found in a community in Sandusky County that in one-half the instances the threshing was shared equally. In the tobacco section the owner frequently buys all the fertilizer for the tobacco. This is especially true in the burley tobacco district. It is customary under this method of renting for the tenant to feed his horses out of his own share of the grain. With hay, the practice varies. Of 63 farms having this method of leasing, with about 50 percent the landlord sold his half of the hay; on the others the tenant was allowed all the hay if fed upon the place. In Stark and Wayne Counties it is customary for the tenant to feed his livestock out of the undivided hay, any surplus to be sold and the proceeds divided. The tenant is usually allowed a limited amount of pasture for his horses and other livestock.

The tenant usually keeps such amount of livestock as he deems advisable, the same to be fed from his share of the crops and he to have the receipts. Some landowners limit the amount of livestock to be kept upon the farm. One lease at hand allows the tenant to keep one cow or horse to every 10 acres in crops. Frequently the

landlord furnishes a manure spreader and in some cases a clover seeder. If lime is used he may also supply a lime spreader. The land owner usually sells his share of the crops. These wide variations in the matters of the details of the one-half share system may be due to the degree of productivity of the farm, the capital of the tenant, the degree of control which the landowner wishes to retain, the relative bargaining strength of the two parties or to anyone of many other reasons.

One of the principal shortcomings of this method of leasing is that in general too many of the crops are sold from the farm and but little livestock is kept.



Not all rented farms have run down land and improvements as is shown by this farm which has been rented for more than 20 years

Crop share with cash rent for pasture.—This method is similar to that where the landlord receives one-half of the crops except that he receives in addition a cash rent for the buildings, lots and pasture land. This method is becoming quite prevalent in western Ohio. It has developed with increased land values.

Where the landlord receives one-half of the crops and one-half the livestock products.—With this method of renting the landlord furnishes the land and one-half of the productive livestock. The tenant furnishes all labor, the horses, equipment and tools and one-half of the productive livestock. The productive livestock is owned in common. The purchased seed, fertilizer, feed and threshing are usually shared half and half. The landlord usually pays one-half the machine hire for silo filling and shredding and in some in-

stances one-half of the extra labor hired for the silo. Twine and fuel expenses are usually paid by the operator in western Ohio, although in some communities it is shared equally. In eastern Ohio it is usually shared equally. The landlord pays the taxes on real estate and upon his share of the chattel, while the tenant pays the tax and insurance upon his share.

The tenant is allowed a truck patch and some pasture for his horses and other livestock. On a dairy farm he is allowed milk, on a beef cattle farm he is usually allowed to keep two or three milk cows of his own. These cows and the horses are to be fed from the undivided feed. The tenant usually keeps a limited number of hens. All farm receipts are divided equally between the landlord and tenant. If colts are raised the landlord pays one-half the breeding fees and owns one-half the colts. In Montgomery County where a large part of the corn is fed to hogs it is customary for the tenant to keep from two to five cows, these to be fed from the undivided roughage, the tenant to receive all the income. The hogs are owned in common and the receipts divided. Sometimes the tenant pays the landlord for one-half of any undivided grain fed to chickens or cattle owned by the tenant.

This method of share renting prevails in the dairy region. In Fulton County a large part of the tenanted farms are rented by this method. In the northeastern section it is the prevailing method of share renting. It is rapidly increasing in favor in the corn and livestock sections of the State. It has the distinct advantage that a large part of the crops are fed upon the farm, and the fertility is thus better maintained. It is easier for a tenant who is short of capital to stock and equip a farm as the landlord provides one-half of the productive livestock and pays one-half of the operating expense. With less capital on the part of the tenant, the farm may be more completely stocked than with the crop share system. There are many variations to be found in this method of renting. Formerly, in northeastern Ohio the owner frequently furnished the entire dairy herd; this is less common now. When a farmer decides to quit farming and to rent his farm on the stock share plan he will sometimes furnish all the herd to start with. When any of the cows in the original herd are sold the owner receives the money. Any increase in stock is owned in common. Of 25 share-rented farms visited in Geauga County in 1915, in no instance where the landowner owned all the cattle had the tenant been on the farm more than 2 years. In some of the more fertile regions of the State landlords are now requiring the tenant to fur-

nish all the grain for the horses. Frequently a part of the corn and oats are divided and the horses and other livestock owned by the tenant are fed from the share of the tenant. Or if they are fed out of the common crib the tenant pays the landlord for one-half of the amount consumed. In some instances they are fed out of the divided hay also. In some sections the tenant pays the owner a fixed sum for the feed consumed per horse.



On the rented farm the upkeep of buildings, orchards and permanent improvements is often neglected

The success of this method of renting depends much upon the maintaining of good relations between the landowner and the operator. With the livestock owned in common there are numerous opportunities for differences of opinion. There are many reasons why the length of such a lease should be more than 1 year. The stock share method of leasing, as it is called, is rapidly gaining favor. It seems to be one of the most satisfactory methods of leasing. It is adapted to those farms and conditions where the landlord and tenant can agree on the details of the lease and where the landlord lives near enough to look after his interests.

Partnership plan.—Another method used to some extent in Champaign, Clark, Madison and adjoining counties is the so-called partnership plan. The landowner forms a partnership with the operator, the partnership cash rents the farm from the owner.

The farm is equipped and stocked by the partnership, each partner sharing alike in operating expenses, including labor hired. The receipts are divided equally. The working partner is allowed a small salary as an operating expense (generally \$500). The tenant oversees the detailed management of the farm, while the owner of the land usually looks after the buying and selling of the farm products.

Cash renting.—Under the cash rent system it is customary for the owner to pay none of the operating expenses except taxes, insurance and permanent repairs on real estate. Many landlords, however, make an exception to this in that they pay for a part or all of the clover and grass seed sown, others pay a part of the fertilizer expense. This practice seems to be increasing. In Highland County it is the usual practice. Frequently the landlord furnishes a manure or lime spreader. Occasionally the operator is paid a cash wage for time spent in making repairs on fences and buildings. Of all the methods of renting described in this bulletin the cash rent system requires the most capital and involves the greatest risk on the part of the tenant. It is frequently preferred by those landlords who live a considerable distance from their farm or are unable to give close attention to its management. It is the general impression among those who let land that cash renting is harder upon the soil than share renting. The cash lease is more frequently for a longer period than is the share lease. Many cash leases are from 3 to 5 years.

PROVISIONS IN OHIO LEASES

Following is a brief enumeration and discussion of the provisions most frequently found in Ohio farm leases.

1. **Description of the farm.**—This includes the location, name and approximate area of the farm. If any part of the farm or any of the buildings are not to be included in the lease, or if any other reservations as to the use of the property are to be made, these should be specified.

2. **Time of beginning the lease.**—Formerly it was the custom for farm leases in Ohio to begin on April 1; now March 1 is the more usual date.

3. **The length of lease.**—The length of the lease should be stipulated. Of 399 farm leases in Ohio regarding which the information is at hand, 74.4 percent were made for 1 year; 2.3 percent for 2 years; 12.5 percent for 3 years and 10.8 percent for 5 years. Of the cash leases 54 percent were for 1 year; 23 percent for 3

years and 18 percent for 5 years. Only one lease was for a longer period and that ran for 8 years. There seems to be little relation between the length of the lease and the period of time which the tenant remains on the farm. In the summer of 1916 farm management survey records were taken on a group of 210 farms in Miami and Montgomery counties. Of these 84 were tenant farms. Of 160 farms visited in Geauga County in the same year 34 were operated by tenants. In the table below is given the number of years which these tenants had been on the farm which they then occupied.

| Number of years tenant on farm then occupied | Number of tenants | |
|---|-------------------------|-------|
| | Miami and Montgomery | Gauga |
| 1 year | 11 | 6 |
| 2 years | 15 | 8 |
| 3 or 4 yrs. | 23 | 9 |
| 5 to 9 yrs. | 20 | 7 |
| 10 year or over | 15 | 4 |

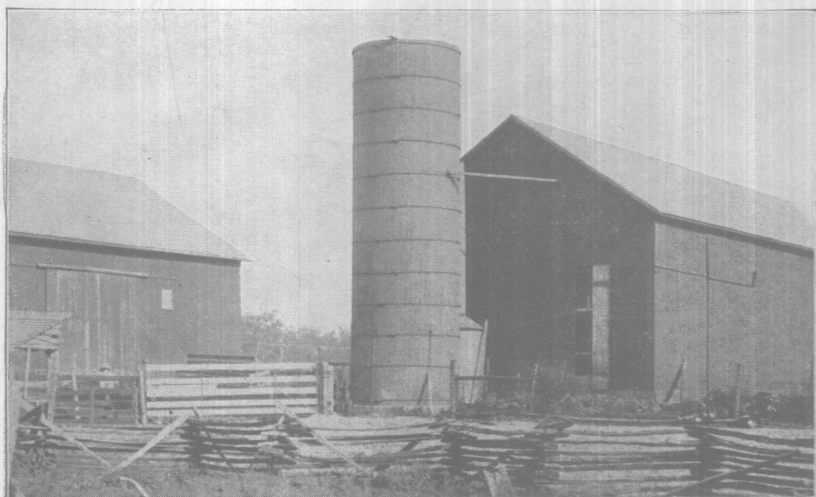
Approximately 90 percent of these tenants had 1-year leases. Five out of the 58 tenants in the Miami County area had been tenants on the farms then occupied for more than 25 years, one for 35 years. There was little difference between the period of occupancy with cash or share renters. A long lease is desirable in many ways yet it will not prevent shifting as effectually as will a change in the attitude of the owner and the operator towards a more stable and permanent agriculture.

4. **What landlord and tenant shall each contribute.**—The lease should clearly state what and how much each party is expected to furnish towards the equipment and stocking of the farm, and what portion of the operating expense each is to pay. These points have been discussed elsewhere in this bulletin. Provision should be made for the necessary working capital and the necessary labor to successfully operate the farm.

5. **Amount of rent.**—The amount of the rent to be paid for the use of the farm should be clearly stipulated. To the landowner who lets his farm for a cash rent it is not always the wisest to let the land to the tenant who will contract to pay the highest cash rent; a lower rent might give a division of the returns which would be more equitable to the tenant and in the long run more profitable to the owner.

6. **Use of property.**—It is customary to include in the lease some provisions regarding the use of the land. The land which is

to be retained in pasture or grass and not plowed should be designated. The crops to be grown should be named. Many leases name the approximate acreage of each crop. This is especially true of tobacco. There is usually a provision regarding the use of fall pasture. If any of the barns or cribs are to be retained by the owner, these should be clearly specified. With the share rent the number of cows, cattle and horses to be kept are frequently designated in the lease. This is especially true in the case of the crop share lease. There should be no unnecessary restrictions in the lease which will interfere with the adjustment of the system of farming to the farm and market conditions.



The tenant on this farm after securing a cash rental contract for 3 years built a silo entirely at his own expense. Such improvements can best be made by the landowner

7. New buildings and fences.—Material and labor for new buildings and fences are supplied by the landlord. Leases usually include a provision that the tenant shall do all the hauling of material for new fences, buildings, tile drains or repairs. It is sometimes provided that a tenant shall board the labor working on improvements, receiving therefor a certain fixed rate. Where a silo is to be put up the lease frequently provides that a tenant shall haul the material, do the team work and the unskilled labor in the building of the foundation and silo.

8. Repair of fences.—The custom is for the landlord to furnish the material for repairs while the tenant does the work.

Some landlords pay the tenant a wage for time spent in the repairing of fences and ditches, in pruning, etc., if done at the request of the landowner.

9. Provisions for maintaining the productivity of the soil; manure, fertilizers and clover, disposal of products.—These are important features of the lease. Among the provisions commonly found in leases are: Those providing for a rotation with clover; the provision that none of the crops except wheat shall be sold from the farm without the consent of the landlord; that none of the stover, straw or hay shall be sold or carried off the farm. To insure the sowing of clover many share leases provide that the landlord shall furnish all the clover and grass seed. Many landlords who rent upon a cash basis have the same provision in their lease. The lease should contain a clause to the effect that the manure will be hauled regularly from the barn and yard to the field and that no manure made from feeds produced upon the farm shall be sold or removed from the farm. When lime is applied it is customary for the landlord to buy the lime, the tenant to haul and apply. In some cases where the haul is long or the application heavy the landlord agrees to pay part of the cost of hauling and applying should the tenant leave before two crops are harvested. In share renting it is usual for the landlord and tenant to share the fertilizer expense equally. A Geauga County landlord who rents on the stock share basis writes: "I buy all lime and we pay in common for 200 pounds of commercial fertilizer per acre and if more is used I pay for it and he (the tenant) applies it. I usually buy 100 or 200 pounds extra per acre and sometimes more. This fall I put 44 tons of limestone on 12 acres, paying the tenant for the extra work." In many sections it is customary in share renting for the landlord to furnish the manure spreader, the lime and clover seed drills. The landlord usually reserves the right to designate where the manure shall be hauled the last 6 months of the lease.

10. Fire wood.—The provisions with reference to fire wood vary widely. Where there is a woodlot on the farm it is customary to allow the tenant his wood free of charge. The provision is usually included that the waste, dead and down timber on the farm shall be used before any of the living is cut, with the additional provision that all brush shall be piled and burned. An occasional lease stipulates that the landlord will pay one-third of the bill for coal used in the house if wood is not burned.

11. **Destruction of weeds.**—All leases should contain articles providing for the destruction of weeds. One lease reads, "The lessee is annually to grub, pile and burn all brush, briars or vines in all the fence rows. He shall mow all fence rows between July 15 and August 15, or lessors may hire someone to do such work and lessee shall pay to lessors the cost of such work and labor. The lessee shall mow the roadside before July 25 without charge. He shall also cut off any vines on or along the road fence. Lessee shall not permit weeds to grow and mature seed in the potato field or truck patch. Nor shall he allow weeds to grow in the cornfield so as to injure the corn." Some leases make allowance if the farm was badly overrun with weeds when the lease began, as in the case of Canada thistles. One owner writes with reference to the destruction of weeds, "The duty of the owner in the case of a weed plague is to cooperate with the tenant in the ordinary run of weeds." A state law requires the destruction of noxious weeds.

12. **Outside work.**—The share lease frequently stipulates that no work shall be done by the tenant or his teams off the farm without the permission of the landlord. This is especially true of those leases where the teams are fed from the undivided feed.

13. **General appearance.**—Nearly all leases have a clause to the effect that the farm buildings and yards shall be kept tidy; that the lawn shall be mowed and kept clear of weeds; that farm machinery, chicken coops and other obstructions shall not be kept in the front yard. A tidy appearance about the place is a great asset to any farm, not only to the owner but also to the tenant. Most owners will give better terms to a tenant who has a reputation for neatness about the yard. A shiftless appearance about the yards and buildings is likely to have a bad moral as well as financial effect.

14. **Division and hauling of products.**—The share lease usually makes some provision for the division of the receipts, crops and livestock products. With the crop share lease it is customary for the division of the crops to be made at the time of harvest, the landlord's share to be put in one bin or mow or hauled to market as he may direct. The tenant to dispose of his share as he may wish and in accordance with the terms of the lease. Tobacco is not divided but sold and the proceeds divided. An Adams County renter writes: "Hay, grain and seeds are divided at harvest or threshing time, corn at husking time, each one selling his own. Tobacco is sold as a whole and money divided." Where provision

is made in the lease that only the surplus hay shall be sold it is not customary to make any division when harvesting but to divide the proceeds when sold. It is customary to provide in the lease that the tenant shall deliver the landlord's share of the grain to market at such times as he may direct. Some leases still provide that the landlord shall have "one-half of the corn in the shock, one-half of the grain in the bin, and one-half of the hay in the mow." In such a case the provision is usually included that the tenant shall husk the landlord's corn, haul the corn, grain and hay to market, receiving therefor a fixed cash compensation. With the stock share or partnership method of renting, no division of crops is usually made. The net receipts from sales are divided. In some instances, however, where the tenant's horses are fed from divided grain and hay, sufficient crops are divided to provide for this.

15. **No sub-letting.**—The lease should contain a clause to the effect that there shall be no sub-letting of the land without the consent of the landowner.

16. **Disposal of livestock and other chattel property at the end of lease.**—Some provision should be made for the division of the common-owned property at the termination of the lease. The methods followed vary widely. One typical Ohio lease contains the following clause: "At the expiration of the lease all products of said farm and all property owned at that time in common by the parties shall be equally divided between them or be sold and the proceeds divided; or part sold and part divided as they may agree, but if they shall fail to agree at that time upon a sale or division of said property they each shall select a referee or arbitrator, who if unable to agree shall select a third and the three shall make such division of said property as to them shall seem equitable, giving each party one-half of the same."

17. **Guarantee that rent will be paid.**—Many leases provide that all deferred payments for rent shall become a prior lien on the livestock and crops of the lessee. One landlord writes, "Confidence in the tenant is one way; another is to cover stock, implements and crops by a chattel mortgage." Another writes, "Rent to an honest man and treat him as such." A typical cash lease reads, "Paying therefor \$900 per year as cash rent to be evidenced by two notes of \$450 each, one note due September 1, and one due December 1, without interest of each year. Said notes shall be secured to the satisfaction of the lessors."

In the stock-share and partnership method of leasing all checks received for the sale of products are usually divided at time

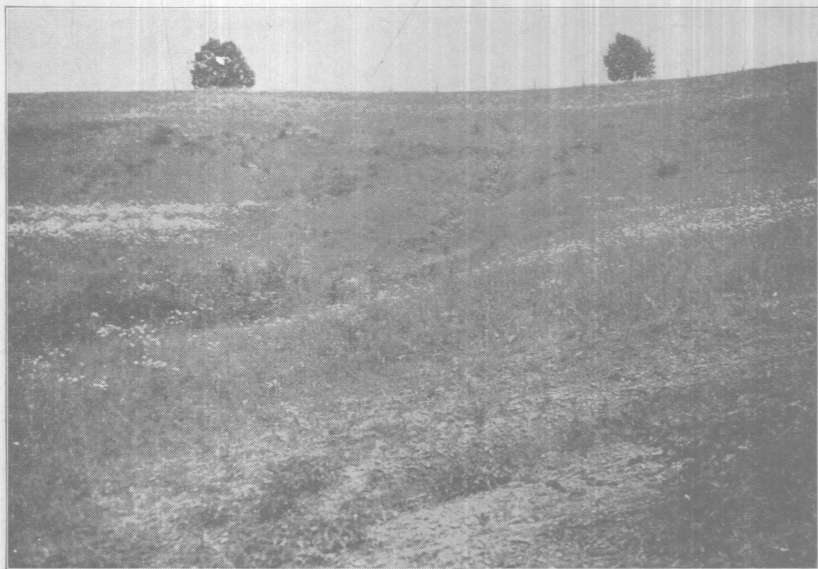
of receipt or placed in the bank to the credit of the partnership. Some landlords, however, require that the tenant receive the money and make each month an itemized statement of all receipts and expenses, and then settle at the end of the month on the basis of this statement.

18. **Away going crops.**—It is the custom in Ohio that the year-to-year tenant has a right to return and harvest the wheat crop sown the previous year. Many leases, however, dispose of this matter otherwise. A Union County lease, for example, reads, "Wheat sown in the fall by party of the second part goes with the farm if party does not stay, but party of the second part is to be paid for actual time of seeding and for his seed wheat. Wheat crop of 1919 (crop seeded by the preceding tenant) to be harvested by party of the second part. Second party (tenant) to deliver two-thirds to party of the first part (landowner)." In one section of western Ohio the prevailing custom is that the outgoing tenant has a right to return and harvest the wheat crop sown the the previous fall or for the outgoing tenant to make arrangements with the incoming tenant for the latter to cut, thresh and market the wheat receiving therefor one-third to one-fourth of the crop. Many landowners reserve the right to purchase the outgoing tenant's interest in the wheat crop if they desire to do so. If the lease runs for a definite term of years the tenant would not have the legal right to sow and harvest an away going crop, unless there is a well established custom to that effect. All leases should provide for the care of away going crops. In cases where the seeding of alfalfa is done at considerable expense, a lease should provide for compensation of the tenant if he does not remain long enough to reap his fair portion of the results.

19. **Enforcing the agreement.**—Many Ohio leases contain a clause to the effect that if the tenant fails to perform any of the terms and conditions called for by the lease it shall be lawful for the landowner to declare the lease terminated and void. It is customary in share leases for the landlord to retain the right in case crops are not properly cared for and harvested to enter and care for the same, deducting the expense thus incurred from the renter's share. This provision is frequently extended to cover other phases of the farm operations, such as cutting weeds and feeding livestock. One share lease at hand provides for nine different cash penalties in the case of nine different violations of the lease by the tenant. It may be questioned whether the inclusion

of such penalties is conducive to good relations between the landowner and the operator. The recourse most frequently resorted to is to serve notice to the tenant to quit at the end of the year.

20. Provision for termination or renewal of lease.—The date on which the contract is to be terminated should be stated in the lease. In leases letting from year to year or in letting for a period of years with the privilege of remaining on the same terms as long as satisfactory to both parties, a clause should be included to the effect that, when either party wishes to terminate the lease, he must notify the other in writing, a designated period before the end of the year. With some the period of notification is 4 months or



One of the disadvantages of the tenant system is the uncertainty of the operator as to whether he will be able to share in the benefits to be derived from more or less permanent improvements. This uncertainty has allowed the washing of the above fields to go unabated.

90 days; 6 months, however, would seem a more satisfactory period. Many farm owners who rent their farms from year to year, now provide in the lease that the tenant shall notify them 6 months previous to the termination of the lease if they wish to remain another year. The owner also agrees to notify the tenant 6 months previous to the expiration of the lease if he does not care to let his farm under the same conditions another year.

21. Arbitration.—Some Ohio leases contain a clause to the effect that, "If any difference arises which we cannot settle the

contract provides for settlement by arbitration. He (the tenant) chooses one man, I, another and they, a third. Their decision is to be final."

22. **Right to enter.**—It is customary for the lease to contain a provision giving the landlord the right to enter upon the farm for such purposes as shall not interfere with its cultivation by the tenant in accordance with the terms of the lease. When the tenant is not to have an interest in the wheat sown the fall before leaving the farm, the lease should contain a provision to the effect that the owner or his agents may enter the premises in the fall, preceding the termination of the lease, for the purpose of preparing the stubble land for crops. This is one of the points over which a misunderstanding frequently arises.

WRITTEN LEASES

While many who let farm land pride themselves in having only an oral contract, the majority of Ohio landlords have a written lease. Of 130 who replied to the question asked as to whether their rental contract was written or oral, 60 percent replied that they used written contracts while 40 percent replied that their contract was oral.

The argument most frequently put forth in favor of an oral lease is that the written lease is of no value. That if a tenant is not satisfactory the only thing to do is to change at the end of the lease, that it is seldom that anything can be recovered by suing a tenant or landlord for breach of contract even if there is a written agreement. Some tenants have an aversion to signing any kind of a contract. Those who use written leases, however, say that they are of value in that they insure that the items mentioned in the contract have been brought to the attention of both parties and that regarding the points mentioned at least there should be a clear understanding. The letter of a contract is usually a more specific guide than the custom of the community. Such points as notice to quit, away-going crops and improvements made by the tenant, which frequently give rise to dispute in oral leases are a matter of record in written leases. All points of possible conflicting interest should be agreed upon at the beginning of the lease. The written lease should be more generally used, it is to the advantage of both parties. Form leases should be avoided and a lease drawn that will fit the particular farm and conditions.

A TYPICAL STOCK SHARE LEASE

The lease which follows is a typical stock share lease as used upon a western Ohio farm. It is not given as a model lease or as one to be adopted by others. It may, however, serve to describe more in detail the stock share method of renting as it is used on a particular farm, and to list the various points which may well be covered by a farm lease.

This agreement made and entered into this first day of March, 1920, by and between..... county of.....state of.....party of the first part, lessor, and county of.....state of party of the second part, lessee. Witnesseth: that the said lessor in consideration of the agreements and stipulations hereinafter mentioned to be kept and performed by said lessee has leased and does by these presents rent and lease unto the said lessor the following described real estate situated in the county of..... state of..... to wit:

To have and to hold the said property subject to the condition and limitations hereinafter mentioned for a period of 1 year beginning on March 1 and ending February 28, being a period of 1 year, with the privilege of renewal upon like terms and conditions for each succeeding year as long as satisfactory to both parties. Notice to terminate this lease shall be given in writing on or before the first of September preceding its termination on the last of the following February.

The method of renting is known as the stock-share plan: The said first party will furnish the above described farm including the improvements thereon and pay all taxes on said property. He will furnish all posts and fencing materials that may be needed upon said farm, either for repairing the fences now on said land or for building new fences. He will build all new permanent fences and furnish the material and skilled labor necessary for repair to permanent improvements as required. He will furnish the limestone necessary to properly lime the land, said limestone to be delivered on board cars at..... He will furnish a lime spreader if needed.

The second party agrees to farm in a husbandlike manner, devoting his entire time thereto, and to furnish all labor necessary to successfully operate the farm; to furnish all teams, harness, tools and machinery, except a manure spreader and lime spreader, necessary to properly conduct the farming operations; to keep the buildings, fences and other improvements in as good repair as they now are, ordinary wear, loss by fire or unavoidable destruction excepted; to haul all materials used for repairing or building new fences or for repairing buildings; to haul and spread all fertilizer and lime; to haul the lessor's one-half of the products of the farm to market free of charge.

The following investment and expenses shall be shared jointly by the two parties of the lease: All farm seeds to be planted or sown on the farm during the period of the lease, this to include grass and clover seeds as well as corn and wheat; feed purchased for feeding the livestock owned in common by the parties hereto, also pasture hire if used by the livestock owned in common; the expense for fertilizer; the machine hire for threshing both small grains and seeds, silage cutting and hay baling; breeding fees and veterinary expense for livestock owned in common; the taxes and insurance on all property owned

in common; a manure spreader. All the livestock kept on the farm, except horses and hens, shall be owned in common, each an undivided interest therein. All of the livestock is to be fed from the undivided feed.

The second party may keep not to exceed six work horses and no other horses. If the second party raises colts, the first party shall pay one-half the breeding fees and own a one-half interest in the colts. The second party to have the privilege of keeping not more than 50 hens for his own use. The second party to have a house, garden and what milk is needed for family use free of charge. Each party is to receive one-half of any cattle or hogs butchered for family use or to pay the other party market price for his share.

When any livestock owned in common, any wheat, corn or hay or any other products of said farm is sold or disposed of, the proceeds shall be divided equally between the two parties to this lease. The sale or purchase of jointly-owned livestock, materials or other farm products shall be made only with the consent of both parties to this lease. All joint business in the way of payments and receipts shall be transacted through the..... Bank of

It is the intention of the parties to this lease to follow a rotation of corn, wheat and clover. The first party reserves the right to control the rotation and acreage of crops. The second party shall haul out all manure made on said farm to December next, preceding the end of the lease and spread it on the land that will be to the greatest advantage to the farm. No manure produced upon the farm shall be hauled off the farm. No straw, cornstalks, chaff, or stubble shall be sold or burned, but all spread upon the land as manure. The wheat stubble shall not be pastured after November 1.

The lessee agrees to take good care of said premises and he will farm said land and look after said improvements in a good, careful, prudent, farmer-like manner, and will return said property in as good condition as he finds it, ordinary wear and tear excepted. The lessee shall maintain the yards in a tidy manner. From May to October he shall mow the yard at least once a month and keep it in a good, clean condition. He shall allow no chicken coops, farm machinery or other obstructions to be placed in the door yard.

The lessee shall keep the weeds cut. He shall mow all fence rows and ditches between July 15 and August 15. He shall mow the roadside before July 25. If he neglects to mow said fence rows, ditches and roadside the lessor may hire some one to do such work and the lessee shall pay the lessor the cost of such work and labor. The lessee shall have the right to cut fire wood from the woods but he shall take only dead and fallen timber that is not good for lumber.

Wheat sown in the fall (of 1919) by the lessee goes with the farm, if lessee does not stay, but lessee is to be paid for actual time of seeding and for his share of seed wheat and fertilizer. The lessee agrees to harvest the wheat in 1919, to pay for the twine, the coal for threshing and one-half of the machine hire for threshing the same, he to receive one-third of the wheat.

The lessor reserves the right to enter said land to inspect or to make improvements thereon and for any or all other lawful purposes in connection with the operation of the farm so long as they do not interfere with the rights of the lessee. In case it is decided to feed the hogs on a plank floor in the barn lot, the first party will furnish the foundation timber, the planks and spikes for such feeding floor, but the second party is to lay said floors.

At the expiration of this lease all produce of said farm and all property owned at that time in common by the parties shall be equally divided between them or be sold and the proceeds divided, or part sold and part divided, as they may agree, but if they shall fail to agree at that time upon a sale or division of said property they each shall select a referee or arbitrator, who, if unable to agree shall select another and the three shall make such division of said property as to them shall seem equitable, giving each party one-half of the same.

It is understood and agreed between the parties that any dishonest act by either party in the division of the receipts or any unfair advantage taken by one or the other shall immediately void the contract. In case the second party shall fail to perform his agreements or any part of them herein contained, then the first party shall have the right upon 24 hours notice to perform or to hire any person to perform the agreements of the second party and all expenses incurred thereby shall be charged against the share of the second party and paid therefrom. Or in case of the violation of the terms of the agreement by the second party, the first party shall have the right to immediately void the contract and the second party shall peaceably vacate the premises. The first party shall have a lien upon all crops, livestock and personal property of the second party grown, fed or used on said farm to secure the payment of rent and damages if any. Differences between the parties of this lease shall be referred to three disinterested persons, one to be chosen by the lessee, one by the lessor, the two thus chosen to select a third. The decision of these three shall be binding.

The lessee agrees that at the expiration of this lease he will yield the possession to the lessor, without further notice, in as good order and condition as when the same were entered upon by the lessee, loss by fire, or unavoidable accident and ordinary wear excepted.

The second party shall not release or sublet said premises or any part thereof without the written consent of the first party.

Signed.....

(Lessor)

Signed.....

(Lessee)

Witness.....

.....

PROVISIONS IN A CASH LEASE

Summary of provisions in the cash lease of a central Ohio estate under which twenty farms are let:

1. Lease of 1 year with privilege of renewal.
2. Lease to begin March 1.
3. Lessee agrees to pay an annual rent of payable in semi-annual installments.
4. Lessee gives two notes as security for annual rent, one due September 1, the other February 28.
5. That lessee will sow to clover, each spring at the proper time for sowing clover, all the wheat ground sown to wheat the previous autumn.
6. Lessee agrees to feed and bed on the premises all of the hay, straw and corn fodder, to haul and spread all the manure produced from the same.

7. Lessee agrees to have as many acres in alfalfa at all times during the period of the lease as there is now growing on the farm.
8. Lessee agrees to cultivate his corn by first hauling and spreading evenly before plowing, on the land allotted to this crop, all the manure on the farm. To cultivate wheat by hauling and spreading on the land all manure accumulated since hauling to corn land.
9. Lessee agrees to thresh all wheat at the barn.
10. Will not allow livestock in the pasture or on other lands between November 1 and May 1.
11. If hogs are allowed to run in pasture they shall be properly ringed.
12. That he will use all of the farm buildings in the manner and for the purpose only for which they are intended.
13. That lessee will keep the orchard properly sprayed, trimmed and cared for.
14. Lessee agrees to mow weeds, once during the last half of June and once during the last half of August.
15. The land now in bluegrass pasture shall not be plowed.
16. All materials for fence repairs to be provided by the lessor, and all labor to be done by the lessee.
17. The lessee cannot assign or underlet without the consent of the lessor.
18. That lessee will surrender premises at the end of lease.

The above are typical provisions in Ohio cash leases. Many provide that a rotation must be followed, some specify the approximate number of acres of the various crops, especially tobacco. Many now provide a minimum as to the amount of commercial fertilizer to be used annually.

A FAIR DIVISION OF THE RETURNS

A fair division of the returns is essential to any lease which is to long prove satisfactory to both parties. Just what and how much should be contributed to and received from the business by the parties to a lease will depend upon the particular conditions. The landlord whose farm is worth \$200 per acre contributes more when he contributes his farm than does the landlord whose farm is worth \$60 per acre. The tenant who operates a tobacco and dairy farm probably contributes more in the way of labor than does the tenant on a corn, wheat and hog farm of the same area. There are as many or more factors which should influence the division of receipts and expenses on a rented farm as there are factors determining the value of land or the wages of labor. The amount received by either party to a lease should be in proportion to that which he puts in.

In the following tables is given a partial list of the expenses incurred in the operation of two groups of rented farms, one in northwestern Ohio, the other in northeastern Ohio. In the labor

expense has been included the estimated value of the farmer's labor and that of his family. The figures given are the average costs per farm. The items of expense not given in the table were mostly shared equally.

NORTHWESTERN OHIO

| | Operator's expenses (partial) | Percent of total farm expenses | | Land- owner's expenses (partial) | Percent of total farm expenses |
|--|-------------------------------------|--------------------------------------|---|---|--------------------------------------|
| Labor..... | \$1,386 | 27.3 | Interest on real estate.... | \$1,452 | 29.7 |
| Depreciation and repair on machinery and horse- | 273 | 5.4 | Depreciation and repair on buildings and fences. | 223 | 4.5 |
| Interest on horses and machinery..... | 100 | 2.5 | Taxes..... | 175 | 3.4 |
| Horse shoeing..... | 21 | 0.4 | Insurance..... | 21 | 0.4 |
| Total.. | \$1,780 | 35.6 | Total... | \$1,871 | 38.0 |

NORTHEASTERN OHIO

| | Operator's expense (partial) | Percent of total farm expenses | | Land- owner's expense (partial) | Percent of total farm expenses |
|---|------------------------------------|--------------------------------------|---|--|--------------------------------------|
| Labor..... | \$1,351 | 32.7 | Interest on real estate.. . | \$681 | 16.6 |
| Depreciation and repairs on machinery and horses | 205 | 4.9 | Depreciation and repairs on buildings and fences | 235 | 5.5 |
| Interest on horses and machinery..... | 74 | 1.8 | Taxes..... | 106 | 2.5 |
| Horse shoeing..... | 22 | 0.5 | Insurance..... | 19 | 0.4 |
| Total..... | \$1,652 | 39.9 | Total..... | \$1,041 | 25.0 |

The above tables would indicate that in northwestern Ohio the four items of operator's costs and expenses as given would be balanced by the four items of the landowner's costs and expenses. In northeastern Ohio, however, the same four items of the landowner's expenses would fall far short of equalling the operator's expense. It is evident, therefore, that a division of the investment, expenses and receipts which would be fair to both parties on the northwestern Ohio farms might be unjust in northeastern Ohio. For this reason farm leases should be avoided and a lease drawn up which will provide for a division of the receipts which will be in proportion to that which each party contributes.

MAINTAINING SOIL PRODUCTIVITY ON RENTED FARMS

Study and observation will generally show that the crop yields on farms operated by tenants average a little lower than those upon farms operated by their owners. There may be several reasons for this, but it is not because the tenant does not appreciate the importance of good crop yields in profitable farming. It is more

often due to the fact that the tenant has no assurance that he will be able to reap the benefits of any time or expense which he puts into the maintenance or improvement of the productivity of the farm.

The tenant who makes a large investment in fertilizer, lime or drainage; feeds a large amount of livestock on purchased feed thus producing manure; goes to extra expense in the securing of a good stand of alfalfa or in ridding the farm of weeds, would incur a considerable expense the full benefits of which he would not receive if he left the farm at the end of the first year after making the improvement. Because of lack of capital the tenant is frequently forced to farm on the basis of immediate returns rather than on the basis of long time average returns, as would be the case of an owner who is more plentifully supplied with capital. Many tenants, especially those operating on a cash basis, now have the feeling that if they improve the farm, the rent may be raised and they will thus be made to pay for the benefits derived from the improvements which they themselves have made or which have been made at their expense. The foregoing are some of the reasons why a tenant is slow about making investments which will not be realized upon the first year. This situation is unfortunate at a time when it is desirable to adopt more intensive practices and types of farming. This attitude is not only injurious to the productivity of the farm but lessens the profitableness of the farming with resultant small returns to both owner and operator. A satisfactory lease must provide for maintaining or improving the productivity of the soil.

England is frequently pointed to as a country which has satisfactorily solved the problem of maintaining yields on rented farms. Under the English system the tenant makes the improvements and is then compensated at the end of his lease for the unexhausted value of improvements which he has made or which have been made at his expense during the period of the lease. This includes compensation for the unexhausted value of fertilizers, lime or clover seed purchased by the tenant; for manure produced by livestock fed upon purchased feed; for tile drainage done by the tenant, and for many other forms of improvement. The compensation is made to the tenant on the basis of the value of the improvement to the incoming tenant. This right to compensation is established by law. The amount of the compensation is determined by disinterested parties. There are, however, several differences between the English system of land letting and

that followed in this country. The English landlord usually owns several farms. He resides at some distance from his farms and is not usually actively engaged in their management. English farms have been owned and let by the same family for generations. The Ohio landlord on the other hand usually has but one farm to let and takes an active interest in its management. Very frequently the renting of the farm is only a temporary arrangement, the owner himself or some member of the family expecting soon to live on and operate it.

Another difference is that in England nearly all the farms are cash rented, while in Ohio share renting prevails. Under the cash rent system, as followed in England, it is customary for the tenant to pay all the current expenses, including the cost of lime, fertilizer, manure, purchased feed and clover seed. Under the share rent system as followed in Ohio, especially where the livestock is owned in common, it is customary for the expenses, such as the purchase price of fertilizer, feed and clover seed to be shared equally by owner and operator. In Ohio leases (both cash and share) it is now customary for the land owner to pay the entire purchase price of the lime; frequently he furnishes a lime spreader, clover seeder or manure spreader. The landlord does the drainage work. The need for compensation on the part of the share tenant is only one-half as great as with the cash tenant, who pays the entire cost.

There are then at least three ways in practice of providing for these improvements on a rented farm. One is for the landlord to pay for the improvements which have a carry-over effect. Another is for the tenant to make or pay for the improvements, the lease to contain a provision in accordance with which he will be compensated at the end of his lease for the unexhausted value of improvements made at his expense. The third way is for the soil improvement expenses to be shared by owner and operator. Where the tenant pays for or shares in the expense of such improvements, it is essential in the making of a lease that both parties recognize the fact that improvements made by the tenant during the period of his tenancy, may give returns beyond the period of his lease.

The soil fertility experiments of the Ohio Agricultural Experiment Station give much information as to the residual or lasting effect of manures and fertilizers when applied to crops in a rotation. In this connection it will be well to consider the results of some of these experiments. In the table given the value of the increased yields resulting from the application of manures and fertilizers as shown by experiments at Wooster is shown. In the

computations, corn has been figured at \$1 per bushel, wheat at \$2 per bushel, oats at \$0.75 per bushel, straw at \$4 per ton, stover at \$6 per ton and hay at \$20 per ton.

One of the experiments at Wooster has been conducted for 25 years with a 5-year rotation of corn, oats, wheat, clover and timothy. On one of the plots the only fertilizer used has been commercial fertilizer applied to the wheat crop. The outcome is given below. Of the total benefit derived by the rotation from the fertilizer application, 57.4 percent was derived by the wheat crop.

RESIDUAL EFFECT OF FERTILIZERS APPLIED TO WHEAT
Ohio Experiment Station
5-year rotation

| Crops | Quantity of increase per acre | Total value of increase per acre | |
|--------------------------------|-------------------------------|----------------------------------|----------------|
| | | Fertilized crops | Residual crops |
| Wheat..... | 14.7 bus. | \$29.52 | ..... |
| Wheat straw..... | 1,556.0 lbs. | 3.11 | ..... |
| Clover hay..... | 837.0 lbs. | ..... | \$8.37 |
| Timothy hay..... | 381.0 lbs. | ..... | 3.81 |
| Corn..... | 8.26 bus. | ..... | 8.26 |
| Corn stover..... | 235.0 lbs. | ..... | .70 |
| Oats..... | 3.96 bus. | ..... | 2.97 |
| Oats straw..... | 171.0 lbs. | ..... | .34 |
| Total..... | ..... | \$32.63 | \$24.45 |
| Percent of total increase..... | ..... | 57.4 | 42.6 |

In another 5-year rotation the fertilizer was applied to both the wheat and corn with the following results:

**RESIDUAL EFFECTS OF FERTILIZERS APPLIED TO
WHEAT AND CORN**
Ohio Experiment Station
5-year rotation

| Crops | Quantity of increase per acre | Total value of increase per acre | |
|--------------------------------|-------------------------------|----------------------------------|----------------|
| | | Fertilized crops | Residual crops |
| Corn..... | 19.23 bus. | \$19.23 | ..... |
| Corn stover..... | 568.0 lbs. | 1.70 | ..... |
| Oats..... | 9.42 bus. | ..... | \$7.07 |
| Oats straw..... | 418.0 lbs. | ..... | .83 |
| Wheat..... | 14.34 bus. | 26.68 | ..... |
| Wheat straw..... | 1,601.0 lbs. | 3.20 | ..... |
| Clover..... | 1,061.0 lbs. | ..... | 10.61 |
| Timothy..... | 641.0 lbs. | ..... | 6.41 |
| Total..... | ..... | \$52.81 | \$24.92 |
| Percent of total increase..... | ..... | 67.8 | 32.2 |

In a 3-year rotation of corn, wheat and clover, the treatment has been 5 tons of manure applied to the corn land, the wheat and clover following without treatment. The results follow:

RESIDUAL EFFECT OF MANURE APPLIED TO CORN

Ohio Experiment Station

3-year rotation: corn, wheat, clover

| Crops | Quantity of increase per acre | Total value of increase per acre | |
|---------------------------------|-------------------------------|----------------------------------|----------------|
| | | Fertilized crops | Residual crops |
| Corn..... | 14.57 bus. | \$14.57 | ..... |
| Corn stover..... | 553.0 lbs. | 1.66 | ..... |
| Wheat..... | 3.5 bus. | ..... | \$7.00 |
| Wheat straw..... | 378.0 lbs. | ..... | .76 |
| Clover..... | 398.0 lbs. | ..... | 3.98 |
| Total..... | ..... | \$16.23 | \$11.74 |
| Percent of total increase ..... | ..... | 58.0 | 42.0 |

The results of these and other similar experiments at the Ohio Experiment Station are given in the following summary form:

SUMMARY OF RESIDUAL EFFECTS OF FERTILIZERS

Ohio Experiment Station

| Rotation | Manure and fertilizer treatment | Total value of increase per rotation | |
|---|--------------------------------------|--------------------------------------|----------------|
| | | Fertilized crops | Residual crops |
| | | <i>Percent</i> | <i>Percent</i> |
| (1) Corn, wheat and clover..... | 5 tons manure on corn..... | 58.7 | 41.3 |
| (2) Corn, wheat and clover.... | 8 tons manure (treated) on corn..... | 42.7 | 57.3 |
| (3) Corn, oats, wheat, clover and timothy | 5 tons manure on corn and wheat..... | 55.6 | 44.4 |
| (4) Tobacco, wheat and clover..... | Manure on tobacco..... | 69.1 | 30.9 |
| (5) Corn, oats, wheat, clover and timothy | Fertilizer on wheat only..... | 57.4 | 42.6 |
| (6) Corn, oats, wheat, clover and timothy | Fertilizer on corn and wheat..... | 67.8 | 32.2 |
| (7) Corn, oats, wheat and clover..... | Fertilizer on corn..... | 40.7 | 59.3 |
| (8) Corn, wheat and clover..... | Fertilizer on corn..... | 44.3 | 55.7 |
| (9) Potatoes, wheat and clover..... | Fertilizer on potatoes..... | 72.5 | 27.5 |

The foregoing experiments all demonstrate that when fertilizer or manure is applied to a crop there is a considerable benefit derived by the crops which follow.

The experiments given would seem to indicate that approximately 50 percent of the benefits derived from fertilizer and manure applied in the ordinary Ohio rotation are recovered in the crops to which they are applied, while 50 percent is carried forward to succeeding crops. Had the fertilizer been rock phosphate instead of acid phosphate the percentage benefit derived by the first crop would be less. With lime a greater percent of the benefit would be derived by succeeding crops. Where fertilizer is applied to an intensive crop like potatoes or tobacco in a short rotation, from two-thirds to three-fourths of the benefit is derived by the crop to which it is applied.

In the matter of clearing the farm from weeds or of putting it in better tilth, the value of improvements is more difficult to measure. A tenant could not reasonably expect to be rewarded at the end of his lease for the unexhausted value of fertilizer, manure and clover seed, if at the beginning of his lease he received without pay the benefits of a similar investment by the previous operator.

Since good soil management is essential to profitable farming, the farm owner should carefully consider how far it will be advisable for him to go towards contributing the fertilizer, lime and clover seed needed in the rotation, or if these are to be furnished by the tenant, what satisfactory arrangement can be made to make the tenant feel secure in incurring the expense. The giving of a 3- or 5-year lease may help, but in the opinion of many the securing of a capable and efficient tenant, a liberal attitude on the part of the landowner, and the maintaining of good relations is more essential than the long term lease.